

Power Characterization Device Engineer II

Type: Full-time
Reports To: Senior Manager, Modeling and Characterization
Location: San Diego, CA

As a Power Characterization Device Engineer II, you will support projects in power semiconductor and IC electrical characterization with major focus on electrical characterization of power semiconductor devices in a small-company, fast-moving environment. Duties will include the following:

- Test structure design and layout
- DC and AC device characterization, including of probe station setup and usage of automated data acquisition software such as IC-CAP and Labview
- Spice model verification
- Reliability characterization
- Wafer Acceptance Test results and yield characterization
- Interaction with other Silanna groups such as Design and Operations
- Documentation of procedures and results
- Support lab management, equipment maintenance, inventory, etc.
- Potential growth path into device development and TCAD

Acceptable candidates must be self-motivated, disciplined, and able to work well in a fast-paced, multifunctional environment.

Required Skills and Experience

- Minimum B.S. in Electrical Engineering, Physics, Materials Science, Solid State Electronics, or equivalent
- 3 years of experience in electrically characterizing devices in integrated BCD power processes. Experience with integrated UHV processes preferred. Experience with compound semiconductor devices is a plus
- Wafer probing experience required. Experience with Labview and/or scripting is a strong plus. Experience with IC-CAP or automating data analysis is a plus
- Experience with power-device-specific characterization (Rdson, Qg, UIS, reverse recovery, SOA, etc.)
- Experience with test structure layout preferred
- Creativity, good problem-solving and communication skills. Strong desire to get to root cause and to learn new skills to broaden capabilities
- Ability to work well in a team-oriented environment